IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) Method for processing video pictures for display on a display device having a plurality of luminous elements corresponding to the pixels of a picture, wherein the time duration of a video frame or video field is divided into a plurality of sub-fields during the luminous elements can be activated for light emission in small pulses corresponding to a sub-field code word which is used for brightness control, wherein to each sub-field a specific sub-field weight is assigned, wherein the video signals for the pixels of a picture are sampled, said video signal samples are represented by video data words having N bits, wherein to the video data words sub-field code words are assigned having N + X bits, N and X being integer numbers, wherein with motion estimation motion vectors are calculated for pixels in a video picture, and these motion vectors are used to determine corrected sub-field code words for pixels, wherein, a motion vector calculation is being made separately for one or more colour components of a pixel, wherein for the motion vector calculation the sub-field code words having N + X bits are used as data input instead of the video data words having N bits for a colour component, and wherein the motion vector calculation is done based on the complete sub-field code words or based on code words that are formed from the entries in the sub-field code words of only a sub-group of sub-fields from the plurality of sub-fields and the motion vector defines a trajectory along which corrected sub-field code words will be placed.

2. (Original) Method according to claim 1, wherein for the case that a motion vector calculation is done based on the complete sub-field code words or for a sub-group of sub-fields, a gradient determination step is performed for comparing pixels in two successive frames, with the gradient between two pixels being defined as the sum of the sub-field weights of those sub-fields of the sub-field code words or sub-group of the sub-field code words which have different binary entries.

3. (Previously Presented) Method for processing video pictures for display on a display device having a plurality of luminous elements corresponding to the pixels of a picture, wherein the time duration of a video frame or video field is divided into a plurality of sub-fields during which the luminous elements can be activated for light emission in small pulses corresponding to a sub-field code word which is used for brightness control, wherein to each sub-field a specific sub-field weight is assigned, wherein motion vectors are calculated for pixels in a video picture, and these motion vectors are used to determine corrected sub-field code words for pixels, wherein, a motion vector calculation is being made separately for one or more colour component of a pixel, and for the motion vector calculation the sub-field code words are used as data input instead of the video signal samples for a colour component, and wherein a motion vector calculation is done based on a single bit picture, wherein each pixel of the single bit picture is equal to a dedicated entry of the corresponding sub-field code word for that pixel, namely the entry for a dedicated single sub-field from the plurality of sub-fields.

4. (Original) Method according to claim 3, wherein the resulting motion vector calculated based on a single bit picture is used to calculate corrected sub-field code word entries for only the sub-field based on which the motion vector calculation has been made.

5. (Previously Presented) Method according to claim 3, wherein motion vectors are calculated separately for those sub-fields having the higher sub-field weights.

6. (Previously Presented) Method according to claim 3, wherein the resulting motion vectors calculated from single bit pictures for a pixel are averaged and the averaged motion vector is used to calculate corrected sub-field code word entries for the sub-field code words.

7. (Previously Presented) Method according to claim 1, wherein for the determination of corrected sub-field code words sub-field entry shifts are calculated for a given pixel based on the calculated motion vector and wherein the sub-field entry shifts determine which sub-field entry in the sub-field code word of a given pixel need to be shifted to which pixel position along the direction of the motion vector.

8. (Previously Presented) Method according to claim 1, wherein it is used in a plasma display device for dynamic false contour compensation.

9. (Previously Presented) Apparatus for performing the method of claim 3, having a sub-field coding unit for each colour component video data, wherein, the apparatus further has motion estimators for each colour component and the motion estimators are sub-divided in a plurality of single bit motion estimators which receive as input data the single bit pixels from the sub-field code words for performing motion estimation separately for a single sub-field and that the apparatus has a corresponding plurality of compensation blocks for calculating corrected sub-field code word entries.

10. (Previously Presented) Apparatus for performing the method of claim 1, having a sub-field coding unit for each colour component video data, and corresponding compensation blocks for calculating corrected sub-field code words based on motion vector data, characterized in that, the apparatus further has corresponding motion estimators for each colour component and that the motion estimators receive as input data the sub-field code words having N+X bits instead of the video data words having N bits for the respective colour components.

11. (New) Method for processing video pictures for display on a display device having a plurality of luminous elements corresponding to the pixels of a picture, wherein the time duration of a video frame or video field is divided into a plurality of sub-fields during which the luminous elements can be activated for light emission in small pulses corresponding to a sub-field code word which is used for brightness control, wherein to each sub-field a specific sub-field weight is assigned, wherein the

pixels are represented by video data words having N bits, wherein to the video data words sub-field code words are assigned having N + X bits, N and X being integer numbers, wherein with motion estimation motion vectors are calculated for pixels in a video picture, and these motion vectors are used to determine corrected sub-field code words for pixels, wherein, a motion vector calculation is being made separately for one or more colour components of a pixel, wherein for the motion vector calculation the complete sub-field code words having N + X bits or code words that are formed from the entries in the sub-field code words of only a sub-group of sub-fields from the plurality of sub-fields are used as data input instead of the video data words having N bits for a colour component, and wherein the motion vector calculation is done based on the complete sub-field code words or based on said code words that are formed from the entries in the sub-field code words of only a sub-group of sub-fields from the plurality of sub-fields and the motion vector defines a trajectory along which corrected sub-field code words will be placed.

12. (New) Method according to claim 11, wherein for the case that a motion vector calculation is done based on the complete sub-field code words or for a sub-group of sub-fields, a gradient determination step is performed for comparing pixels in two successive frames, with the gradient between two pixels being defined as the sum of the sub-field weights of those sub-fields of the sub-field code words or sub-group of the sub-field code words which have different binary entries.

13. (New) Method according to claim 11, wherein for the determination of corrected sub-field code words sub-field entry shifts are calculated for a given pixel based on the calculated motion vector and wherein the sub-field entry shifts determine which sub-field entry in the sub-field code word of a given pixel need to be shifted to which pixel position along the direction of the motion vector.

14. (New) Method according to claim 11, wherein it is used in a plasma display device for dynamic false contour compensation.

15. (New) Apparatus for performing the method of claim 11, having a sub-field coding unit for each colour component video data, and corresponding compensation blocks for calculating corrected sub-field code words based on motion vector data, characterized in that, the apparatus further has corresponding motion estimators for each colour component and that the motion estimators receive as input data the complete sub-field code words having N+X bits or code words that are formed from the entries in the sub-field code words of only a sub-group of sub-fields from the plurality of sub-fields instead of the video data words having N bits for the respective colour components.